

## Abstract

The present invention discloses a catalyst useful in converting carbon monoxide and water to hydrogen and carbon dioxide (water gas shift reaction), which includes a metal oxide carrier and 0.1-10 % Pt and 0-5% Re supported on  
5 the carrier, based on the weight of the carrier. The carrier contains copper oxide, alumina, and a metal oxide selected from zinc oxide, chromium oxide and magnesium oxide. The present invention also discloses a method for reducing the content of carbon monoxide in a hydrogen-rich reformat gas.